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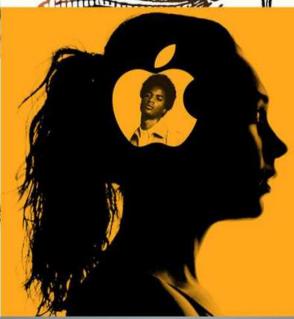
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#### 'INFINITY' CREATORS HAVE FAITH IN 'FORCE AVVAKENS' EDITION





It probably would have been easier to break into the Death Star.

For the video game makers working on "Star Wars: The Force Awakens" content in the forthcoming installment of the "Disney Infinity" toys-to-life franchise, getting their hands on the top-secret script involved high-security protocols rivaling the Galactic Empire.

"We had to go through biometric scanning, and there were codenames for everything," said John Vignocchi, vice president of production at Disney Interactive Studios and emperor of the "Infinity" franchise. "It was without a doubt the most complicated thing we've ever worked on in the five years I've been here."

That's probably not hyperbole considering the ambitious "Infinity" has featured a wide variety of characters from across Disney's alliance of intellectual properties. Everyone from Iron Man of Marvel's "The Avengers" to Elsa of Disney Animation's "Frozen" has appeared as playable characters that can uncharacteristically play together.

Similar to Activision's "Skylanders" series, "Infinity" requires users to place a physical toy figure on a reader to virtually portray that character on screen, either in franchise-specific "playsets" or in the open-ended "toy box" mode, which allows users to design their own levels with an array of Disney characters, vehicles and props.

The brand-busting introduction of "Infinity" in 2013 helped push Disney's interactive division to become profitable for the first time in six years, though Disney reported in its Aug. 4 earnings call that "Infinity" sales have recently slipped. They are expected to strike back Aug.

30 when a "Star Wars"-centric third installment is unleashed.

"Disney Infinity 3.0" will feature a collection of characters from across George Lucas' sprawling sci-fi universe, such as Luke Skywalker and Darth Vader from the original trilogy, Yoda and Anakin Skywalker from the prequels and "Clone Wars"



animated series, as well as all-new recruits from filmmaker J.J. Abrams'"The Force Awakens."

During a presentation at the fan-filled D23 Expo on Sunday, actors John Boyega and Daisy Ridley were to unveil the figures of their "Force Awakens" protagonists, soldier Finn and scavenger Rey. The pair will be featured in a playset that will serve as the only way for fans to interactively experience the plot from the hugely anticipated new film.

"It's been a lot of work," said Vignocchi earlier this week during a break from the Toy Box Summit, an annual gathering of top "Infinity" players. "It's an honor but also a huge responsibility because







we're the only game in town with `Episode VII' content on consoles. We have to deliver a video game experience that's just as great as the film."

When "Infinity" launched in 2013, Disney dubbed it a platform - not just a game - and promised it would be a new way to give consumers interactive content based on films and TV shows, instead of typical stand-alone titles. That's never been more apparent than in the company's decision not to release a separate "Force Awakens" game.

John Blackburn, general manager at lead "Infinity" developer Avalanche Software, said creating "Episode VII" content for "Infinity" proved challenging since the team secretly working on it had to be kept small and testing the game before "Force Awakens" footage was released meant employing codenames for characters and locations.

"We don't want to show too much because you need to first see the film," said Blackburn. "The first time you see these characters should not be in our game. That's just a baseline belief because we're taking it and putting it through a different lens. The palette we had to choose from was basically of things that people had already seen."

It's uncharted territory for "Infinity." Unlike most well-known Disney, Marvel and Lucasfilm characters, these "Force Awakens" newbies aren't arriving with fan clubs or backstories. Heck, Finn and Rey's last names are still a mystery. (Blackburn, however, knows them. Despite the clandestineness, he read the film script over a year ago.)

"There is an awareness challenge because people aren't as familiar with these characters, but there

are other characters from the `Star Wars' universe that are in the film and other playsets," said Matt Fillbrandt, executive producer of franchise management at Lucasfilm. "There's connective tissue that I think will pique fans' interest."

Regardless of the rise of "Star Wars" in "Infinity," it won't totally choke the toy-game series.

Disney Interactive announced at D23 that caveboy Spot from Pixar's "The Good





Dinosaur," as well as rabbit police officer
Judy Hopps and popsicle-wielding fox Nick
Wilde from Disney Animation's "Zootopia"
are also coming to "Infinity," while the Marvel
superheroes will receive a rock-'em-sock'em four-player multiplayer expansion called
"Battlegrounds."

"We have a plan for what's next, and it's not predicated on a huge franchise release," said

Blackburn. "Opportunistically, are we going to use those things? Yeah, definitely, but we're hard at work on the next content. When you look at it as a whole, we've launched everything, and now it's like we're going into sustainment mode."

Online: http://infinity.disney.com







# 'NEXT GEN STATS' OFFER NEVV INSIGHTS FOR NFL FANS AND COACHES

As Richard Sherman sprints side-by-side with Calvin Johnson, who is running faster? When Luke Kuechly collides with DeMarco Murray, who has more momentum? And which NFL players run slower in the fourth quarter than they did at the start of the game?

Thanks to nickel-sized transmitters on each players' uniform and high-tech tracking systems at all NFL stadiums, fans will have a vast new set of statistics to study this season.

It's all part of the league's "Next Gen Stats" venture, which could eventually change the way teams scout opponents and design game plans.

"How fast does a running back get to the hole? How fast did he get through the hole?" said Nick Stamm, director of marketing and communications for Sportradar, the NFL's data distributor. "There's going to be really a lot of analysis that comes out of this."

Speed in the NFL is generally measured in 40yard dash times. Now, fans will see who has "game speed" and who uses it every play.





The signals from the Radio Frequency Identification (RFID) chips each player wears are sent to small receivers positioned around the stadium.

Zebra Technologies Corporation is in charge of gathering all this information for the NFL, and Sportradar works to distribute it. Last season, over half the stadiums in the league were equipped for this type of tracking, and broadcasters occasionally mentioned these new stats. Now the data will be available on every play in every game.

"This season is about rapid expansion to all the stadiums as well as the availability of more information from a consumer standpoint," said Eric Petrosinelli, Zebra's general manager for sports solutions. "This whole area of player tracking, we're in the infancy stages."

Similar "heat-mapping" technology has been used for years in soccer, providing stats on how far players run, how their speed changes throughout the game what areas of the field they spend the most time in.

Petrosinelli and Stamm spent Thursday night's exhibition game between the Detroit Lions and New York Jets in a box high above the field, watching a computer screen that tracked player movements even during pregame warmups.

The system can measure speed, distance covered and how much space between players at a given moment.

"The challenge is to make sense of these data points and put it into context," Stamm said. "There's going to be a lot of ways to commercialize this and get a different perspective of the game, and eventually it all will get to the fans."





Microsoft's NFL app will offer animated replays during games, giving fans an instant high-tech perspective on how plays unfolded.

"There's a lot going on with 22 players during a play," said Jeff Tran, director of sports and alliances at Microsoft.

As fans become more familiar with these Next Gen Stats, the question is what teams might be able to do with them. Fantasy players and gamblers will undoubtedly analyze the stats to try to get an edge.

Tech-savvy coaching staffs would also be eager to get the data, and the league is still trying to figure out how and when to allow teams to access it.

Teams can already use player tracking services during practice. NFL spokesman Brian McCarthy says there's no timeline yet for offering the game data to teams.

"We will continue to evaluate its use in conjunction with the competition committee," he said.

The New Orleans Saints have been using the practice data.

"For us it is distance, workload, travel, all of those things. Zebra has been great to work with. We think it is helpful for us to monitor workload," Saints coach Sean Payton said. "You are able to look for the exceptions when you are studying numbers. You are able to study and see maybe something that is unusual to stand out."

As interesting as the information can be to coaches and fans, it doesn't always resonate with players.









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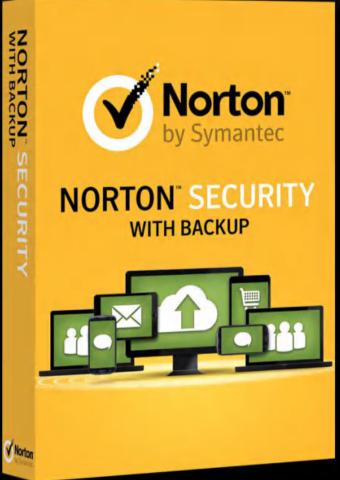
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Amazon isn't the only company that is using data on employees to improve productivity.

A New York Times article over the weekend portrayed Amazon's work culture as "bruising" and "Darwinian" in part because of the way it uses data to manage its staff. The article depicted a work culture where staffers are under constant pressure to deliver strong results on a wide variety of detailed metrics the company monitors in real time - such as what gets abandoned in peoples shopping cards and what videos people stream - and encouraged to report praise or criticism about colleagues to management to add to more data about workers performance. The story led to an outcry on social media.

Amazon's CEO Jeff Bezos said in a memo to staff over the weekend that the article doesn't accurately describe the company culture he knows. But experts say the kind of data-driven staff management Amazon uses is set to become more common as technology continues to transform the American workplace.

"Every company is somewhere in process toward using data to get a better handle on who their top performers are and to understand where people stand," said John Challenger, CEO of outplacement consultancy Challenger, Gray & Christmas, Inc.

Companies, both large and small, have been moving away from traditional human resources reviews that rely on annual performance evaluations. They're moving toward a more data-driven approach with more frequent feedback, check-ins, and other metrics.

Consulting firms Accenture and Deloitte both said this year they would revamp their performance review processes, for example, adopting a more data driven approach that includes more frequent ratings by managers and other internal feedback and data that can be aggregated and analyzed to provide a better portrait of performance than a single rating. In an essay in the Harvard Business Review, Deloitte said the new approach uses "the technology to go from a small data version of our people to a big data version of them."

Tech companies have been even speedier in applying data analytics to staffing. Google, for example, uses data to figure out how to put together optimal-sized teams for projects and figure out what makes effective leaders.

Paul Hamerman, a Forrester analyst who focuses on human resources management and financial applications, says the future may look more like what Glint Inc., based in Redwood City, Calif., is offering clients. The company, with clients including music-streaming site Pandora and marketing automation company Marketo, sends employees what it calls "pulses," or short surveys about how they are feeling and how they feel about their job.

Glint CEO Jim Barnett said the surveys let executives see how the health of their employees and company are faring in real time, in the same speed with which they might be able to check sales results or marketing impressions. Since the "pulses" to company employees recur more frequently than traditional reviews. And their data can be aggregated to give a clearer picture of how employees are faring overall.





"The old mentality was once a year we would check in with an annual survey, have an annual review, set goals," said Barnett. "What we've learned is the world today moves much faster than that."

One of Glint's clients, Marketo, was able to use the data gleaned from the Pulses to see that women in one department were ranking their work/life balance substantially lower than expected. The company found a staffing shortage in that area and increased staff.

"What they were able to do was to go in and increase the staffing before they had significant attrition," Barnett said. "The beauty of systems like this is you're able to link actions to outcomes."

The downside to a data-driven approach is t can seem "Big Brother-ish" to staffers. But Glint said the surveys that the company sends out have an 80 to 85 percent response rate. "Employees tend to be willing to share," Barnett said.

Another drawback: Relying strictly on numbers can lead to the perception of a cold-hearted workplace. "It's easy to get so hung up on statistics that you miss the value of what that individual brings to the table in terms of personality, connectivity and those intangible pieces," said David Lewis, CEO of HR outsourcing and consulting firm OperationsInc in Norwalk, Conn.

That can lead to a dysfunctional workplace. "If everybody is miserable about what they are doing at work that bleeds over," said Jay Starkman, CEO of Engage PEO.













### 2 JUMBO PHONES FROM SAMSUNG AHEAD OF EXPECTED NEW IPHONE



Samsung has unveiled two new Android smartphones with jumbo screens as it seeks to recapture some of the sales lost to Apple after larger iPhones came out last year.

Samsung said Thursday that the new Galaxy
Note 5 and S6 Edge Plus will start shipping Aug.
21 in the U.S. and Canada. Usually, Note phones
don't come out until well after Apple's new
iPhone models in September.

The timing reflects a shift in fortunes for a company that pioneered jumbo phones with the original Note in 2011. Now, Samsung needs to beat Apple to the punch, or risk seeing its products drowned out by all the attention on the iPhone, IDC analyst Ramon Llamas said.

The new phones from Samsung have screens measuring 5.7 inches diagonally, the same as last year's Note 4, yet both are lighter and thinner. They are comparable to Apple's 5.5-inch iPhone 6 Plus, the larger of the two new iPhones.





Samsung's Galaxy S6 and S6 Edge phones, which are closer in size to the regular iPhone 6, came out in April.

The Note 5 will cost \$696 to \$740 without a contract, depending on the carrier. The Edge Plus will cost about \$75 more. The iPhone 6 Plus sells for about \$750. T-Mobile is throwing in a year of Netflix with both phones, while Sprint is giving away a low-end Samsung tablet with a two-year contract. Advance orders begin in the U.S. on Thursday.

Samsung Electronics Co. also said its Samsung Pay mobile payment service will debut in its home country of South Korea on Aug. 20. Testing in the U.S. will begin Aug. 25, with a formal launch on Sept. 28.

Although there's competition from Apple Pay and Google's upcoming Android Pay, Samsung is hoping its payments system will catch on with the inclusion of a technology that mimics the old-school, magnetic signals from credit-card swipes. That allows it to work with a wider range of merchants, though it still won't work everywhere cards are accepted.

Samsung also teased an upcoming smartwatch, the Gear S2. It will have a round face, rather than the rectangular design in Apple Watch and previous Samsung watches. A video from Samsung suggests snazzy graphics to rival Apple Watch. More details will come at the IFA tech show in Berlin next month.

As for the phones, Samsung is looking to play to its strengths.

### **GALAXY NOTE 5**

Though it appeals to a niche audience, the Note is popular for including a stylus to take notes and annotate images on the screen. The update provides quicker access to apps and features that use the stylus. A clicking mechanism makes the stylus easier to pull out.

One new feature ends the need to print out and rescan electronic forms to sign or fill out.

Just write on the PDF document directly before saving and sending.

Screenshots can get annoying when you're just snapping what's visible on the screen. An article or list of directions you're trying to save might take four or five shots. A new feature called scroll capture combines all those shots into one image, though you still need to snap them one section at a time.









### **GALAXY S6 EDGE PLUS**

The screens on Samsung's Edge phones are curved on both sides. The feature proved popular in this spring's S6 Edge, which used one of those sides for quick access to friends and other frequent contacts. Now, you can use it for quick access to favorite apps, too.

There won't be a stylus, though, as last year's Note Edge phone had.



### **COMMON TO BOTH PHONES**

The new phones incorporate the improved camera technology found in this spring's S6 phones. Added is live streaming of video you're capturing, a practice made popular by Meerkat and Twitter's Periscope apps. Samsung's video will appear on YouTube. The front cameras take sharper selfies, at 5 megapixels rather than 3.7.

The new phones also borrow design elements from the S6. They sport aluminum frames and glass backs rather than plastic. The back of the Note 5 is slightly curved for a better grip, while the Edge gets its curve on the front. Either way, it doesn't feel as boxy as the regular S6.

Borrowing another page from Apple's playbook, the phones are coming out just a week after they are announced. It used to take Samsung a month or longer.



everybody else out there," Llamas said. "For a

while, Samsung was the `be all and end all' of

Android devices. Now, it's a different market."

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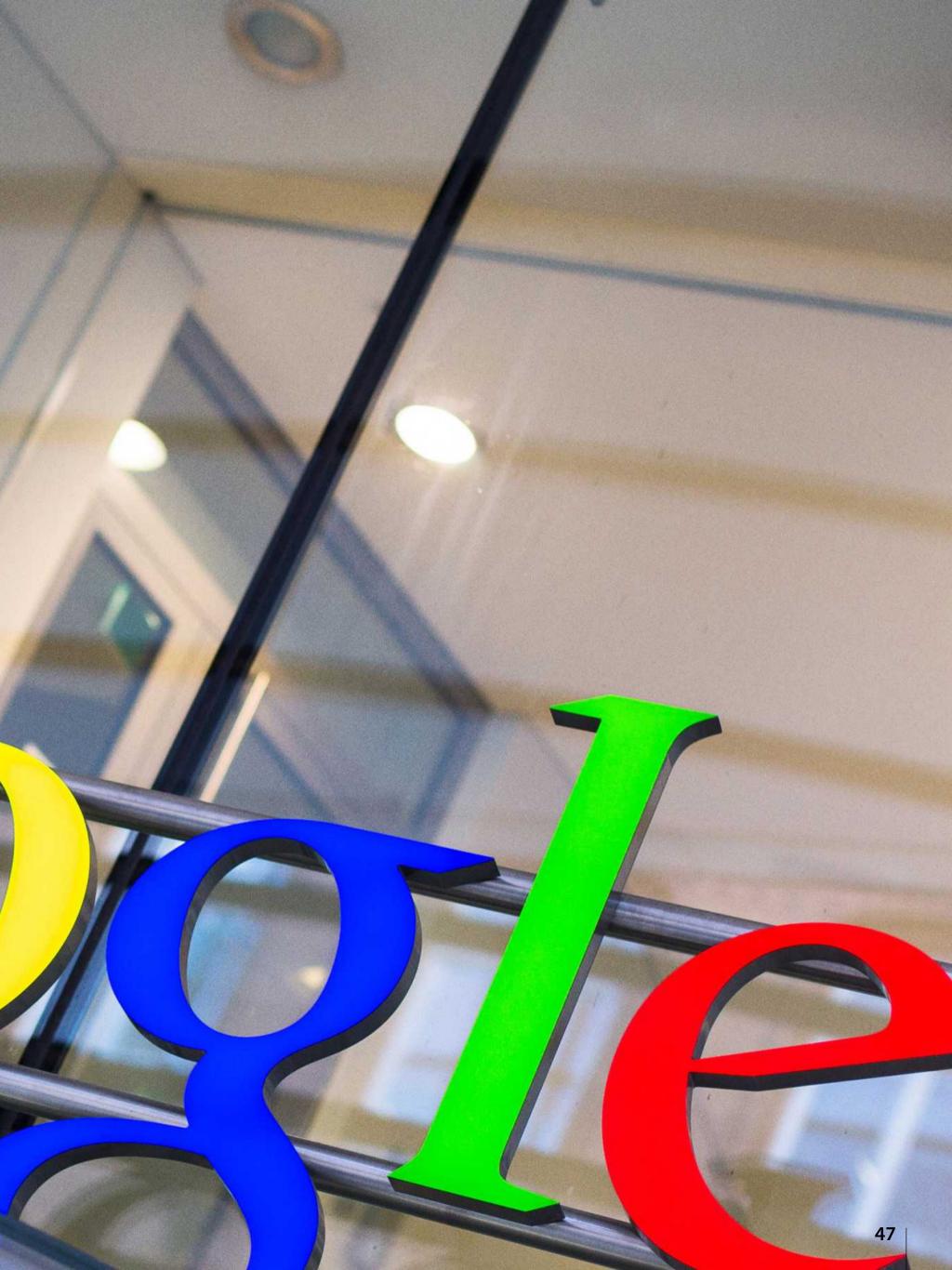
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Monday, August 10 has gained a huge significance in the long history of Google, the world's most successful, wealthy, and simultaneously admired and criticized web search company. That's because, on that day, in what must have initially seemed a rather inconspicuous blog post that was published just after closure of the stock markets, Larry Page, one of the company's co-founders, announced that Google will soon be no more. A whole new company, called Alphabet, will be taking its place.

Phrased in this rather straightforward manner, the change sounds like a major upheaval for Google. However, the above is really only a basic and, it would be sensible to suggest, not entirely accurate description of the change, while closer inspection of both the rhetoric dispensed by Larry Page - who, with Sergey Brin, set up Google as a very modest Internet search page nineteen years ago - and the more technical details reveals that the true long term influence of Alphabet could be difficult to assess.

### IS IT REALLY THE END OF GOOGLE? NOT QUITE...

Before we get too far ahead of ourselves, however: what exactly has Page himself said is going to happen to Google? Well, as we described in the very first paragraph, Google is indeed being replaced. However, that is largely just on the stock markets. In many ways, Google as we currently know it - as, for example, a search company, the YouTube owner, the Android maker, the app developer - is actually remaining very much intact.

Basically, Alphabet is a new holding company that will now have Google as its biggest wholly owned subsidiary. Alphabet will have many other subsidiaries, of course; however, entirely fittingly given this structure, they will have very different aims to Google, which will now return closer to its 1990s roots as predominantly a search company rather than a technology corporation. On **the front page of Alphabet's website**, Page describes the new Google as "a bit slimmed down", but set to become "even better through greater focus".

Given the manner in which Google has, over many years, expanded into a high number of different, previously unexplored markets in an apparent bid to keep pace with formidable tech rivals like Microsoft and especially Apple, the restructuring under Alphabet certainly seems rational. Various unorthodox ventures previously embarked on under the Google banner, including the broadband division Fiber and investing operations like Capital, will now be run separately - but still under the watchful eye of Alphabet. Page has expressed his company's belief that "this allows us more management scale".

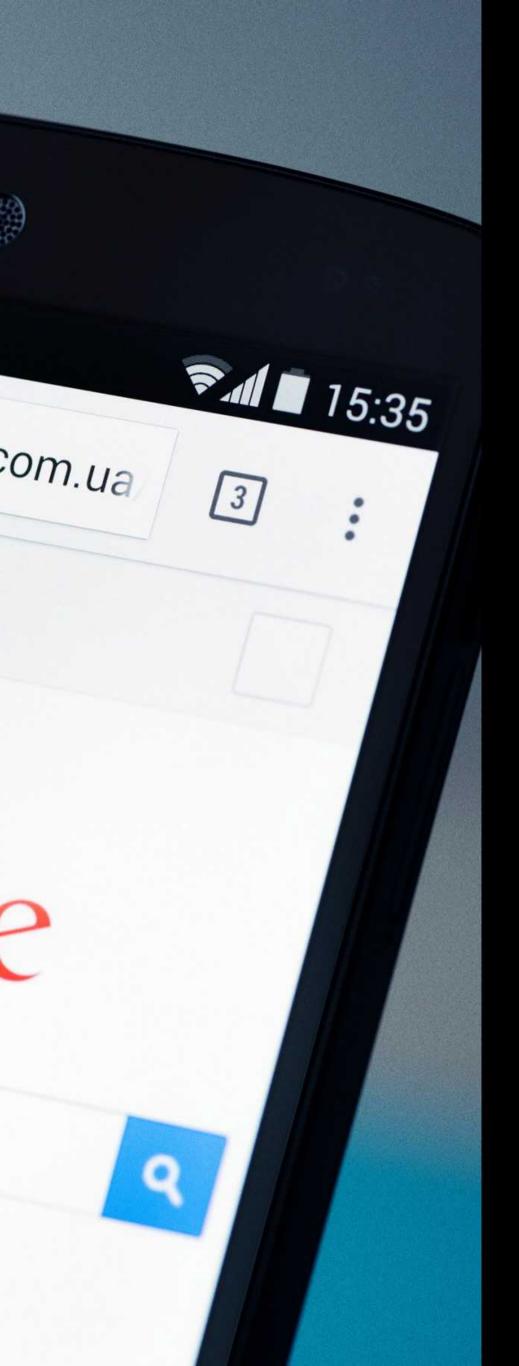
### SHOULD INVESTORS REALLY BE CHEERING?

So, that's precisely how Google will be changing. The stock market has certainly given its stamp of approval, with a sharp 5% increase in the value of Google shares in after hours trading. Julian Birkinshaw, Professor of Strategy and Entrepreneurship at London Business School, has noted that it is "understandable" for investors, eager for more detailed insight





a https://www.google.co Web Images 000



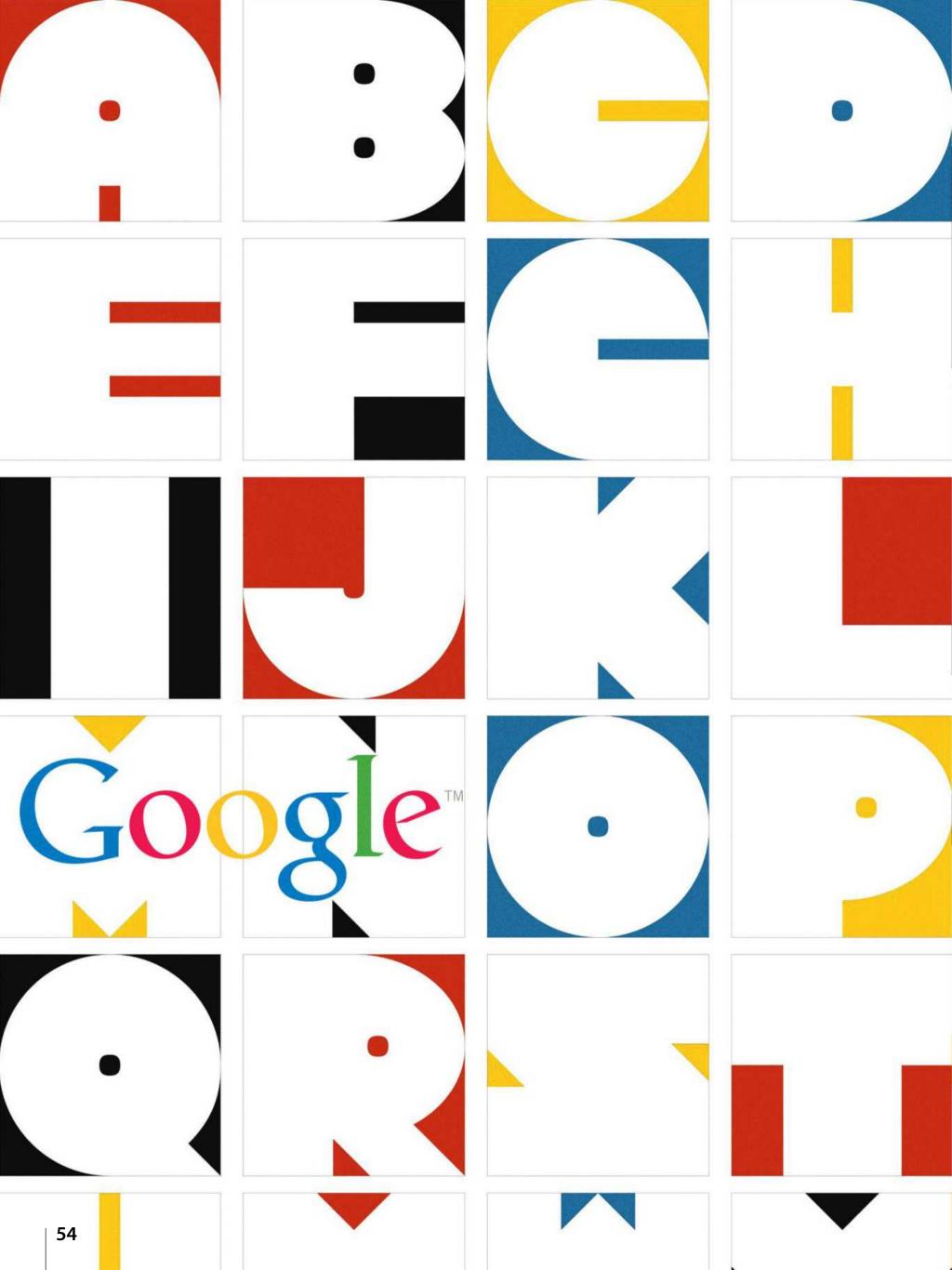
into the sources of Google's revenues and the profitability of its different divisions, to applaud the new structure.

However, Birkinshaw has been quick to emphasize the "enormous problems" that could await for these investors as this greater transparency brought about by the emergence of Alphabet begins to exert its influence. The apparent theory behind this new transparency is that, as investors become happier, the company will perform better. This contrasts with Birkinshaw's insistence that, as "investors are notoriously short-sighted" and "rarely supportive of big risky bets", projects that necessitate short term risk but could prove much more fruitful further down the line could be shut down before they are even given sufficient time to grow.

### THE BEGINNING OF THE END FOR A TECH GIANT?

Such a situation could lead Alphabet to dedicate more of its resources to those initiatives that have already long proven successful; think, most obviously, the search offer, plus thriving YouTube and Android projects, all of which will remain the responsibility of Google. Ironically, this strategy could severely handicap Alphabet in what Page has described as one of the biggest objectives with the new company: to make progress in uncharted waters and break new ground.

As Page says himself on the Alphabet website, "in the technology industry, where revolutionary ideas drive the next big growth areas, you need to be a bit uncomfortable to stay relevant."





This leaves Page's public pledge to make his self-knowingly well-operating company "more accountable" rather... worrying. Could Google gradually fall behind Apple in the competition to innovate? And could this, in turn, encourage stagnation in the tech industry as a whole, as one of its biggest standard-bearers slowly fades?

### THE MORE THINGS CHANGE, THE MORE THINGS STAY THE SAME

However, Birkinshaw's gloomy predictions could be on the assumption of a much more revolutionary restructuring for Google than what is actually on the cards. The list of staff changes, for example, reads like a kind of musical chairs; Page and Brin will leave Google, but only to take up the respective new positions of CEO and President at Alphabet. Meanwhile, Sundar Pichai - who, as made clear in documents filed with the Securities and Exchange Commission, has already held many key positions at Google since joining the company in 2014 - will take over the new, subsidiary Google.

Furthermore, it could be suggested that, in a similar vein to Apple, Google's first steps into unfamiliar business sectors have typically been tentative, with the company only ramping up its sense of adventure in these projects once they have shown genuine signs of promise. For example, in 2006, Google acquired YouTube for \$1.65 billion; Morgan Stanley analyst Brian Nowak reckons that the video sharing site will bring in revenues of \$11 billion next year. Google's travel business has similarly much developed after a small acquisition.

This helps to explain why, as MarketWatch's Tim Mullaney has observed, "when Google does screw up, it tends to screw up small." He has even pointed out an example of the company making money from what was, on the whole, a failed deal: its \$12 billion purchase of the mobile phone manufacturer Motorola Mobility. It all suggests that Google's most established successes, which will all pass to the subsidiary Google and are responsible for 90% of the company's revenues, could long remain the chief breadwinning projects even for Alphabet.







### PERHAPS THERE'S LESS THAN WHAT MEETS THE EYE...

The stronger investor influence could, therefore, simply reinforce, rather than rein in, the strategy that Google has already long followed. This is hardly what Page has envisioned in his big, headline-grabbing announcement about Alphabet - but it does suggest that the new company can look forward to a long period of consistently healthy financial development through continuing to work to Google's traditional strengths.

Apple employees to CEO Tim Cook, largely thought to be due to Cook's tendency not to overly deviate from the template set down by the popular Steve Jobs, hints at the importance of a conservative streak in helping a successful company to maintain its position - even as it continues to take occasional risks on unusual projects. This rather begs the question: should many people associated with Google - staffers, investors and consumers included - really feel anything more negative than indifference to the arrival of Alphabet? ■

by Benjamin Kerry & Gavin Lenaghan

### APPLE SAID TO SHOVV INTEREST IN AUTOMOTIVE TESTING FACILITY

Adding fuel to rumors that Apple is working on designs for a car, local officials say engineers for the giant tech company recently made inquiries about a former navy base that's been converted into a testing ground for self-driving cars and other cutting-edge vehicles.

Apple, which is best known for making iPhones and Mac computers, hasn't said what kind of testing it hoped to conduct at the GoMentum Station automotive testing facility, which used to be a naval station in the San Francisco Bay Area city of Concord.



"We don't know. They haven't said what they want to test. It could be an iPhone," joked Jack Hall, program manager for connected vehicles and autonomous vehicles at GoMentum Station, which is operated by the Contra Costa Transportation Authority. The agency is promoting a portion of the former Concord Naval Weapons Station as an ideal testing facility for carmakers and tech companies working on automotive technology.

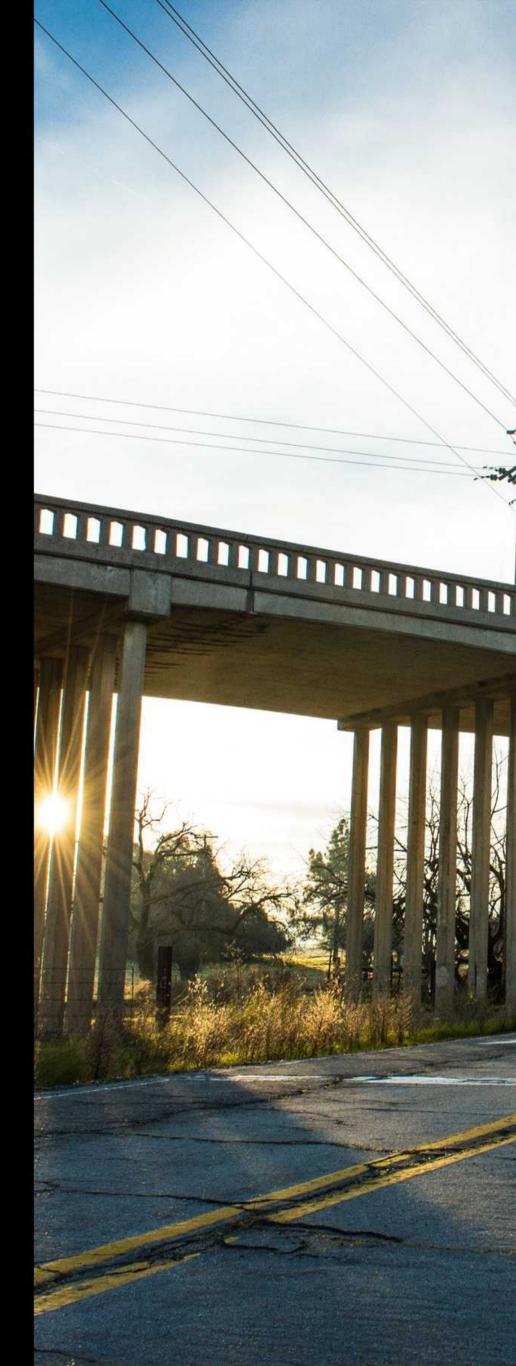
"It's got all the infrastructure of a city," Hall said of the facility. "There are buildings, streets and intersections, but no people."

The 5,000-acre site has 20 miles of paved roads, including overpasses, tunnels and railroad crossings, according to the agency's website, which calls it "the largest secure test facility in the world." Another 7,600 acres of the former navy base is now used as a shipping terminal by the U.S. Army.

GoMentum Station already has an agreement with Honda, which plans to test automated vehicle systems there. Hall said his agency hopes to partner with other companies for testing self-driving cars and "connected vehicles" - cars that use the Internet and local networks to exchange a variety of information with other devices and vehicles.

Apple has "shown interest" in the facility but has not reached any agreement for testing there, Hall said. Company representatives have not actually visited yet, he said. An Apple spokesman declined comment Friday.

The tech giant's interest in the facility was first reported by the Guardian newspaper, which cited email correspondence obtained under





a public-records request. The newspaper also quoted another official at the transportation authority who said Apple insisted on a non-disclosure agreement which barred him from saying any more.

A number of automakers and tech companies, including Google, are working on new designs for autonomous and electric-powered vehicles.

In February, The Wall Street Journal cited unnamed sources who said Apple is working on designs for an electric vehicle to be sold under the Apple brand. Analysts say Apple has the financial wherewithal and ambition to pursue such a project, although some believe it's more likely interested in developing software for use in cars made by other companies.

Other evidence of Apple's interest in cars has surfaced in recent months, including a lawsuit in which a Massachusetts startup working on electric car batteries accused Apple of poaching some of its engineers. The lawsuit has since been settled.







# Apple More Than Doubles Hiring of Women and Minorities





Apple says it more than doubled the numbers of women, blacks and Hispanics hired in the last year, although that barely moved the needle in terms of improving the diversity of its total workforce.

Like other major tech companies, Apple has been under public pressure to increase the number of women and minorities in a workforce that is overwhelmingly male and white or Asian. Civil rights leader Jesse Jackson has been joined by members of Congress and other critics calling for Silicon Valley firms to make their employees more representative of the population as a whole.

Apple CEO Tim Cook said in a statement Thursday that he's proud of his company's efforts, but acknowledged, We know there is a lot more work to be done.

The maker if iPhones, iPads and Mac computers issued a report Thursday that follows similar reports from Google, Facebook, Intel and other large tech companies. Most of those companies only began disclosing their hiring numbers after Jackson began pressing them to do so last year. One exception is Intel, which has been releasing diversity statistics for more than a decade.

Apple Inc. said 35 percent of its new hires worldwide last year were women, while 24 percent of U.S. hires were black or Hispanic.

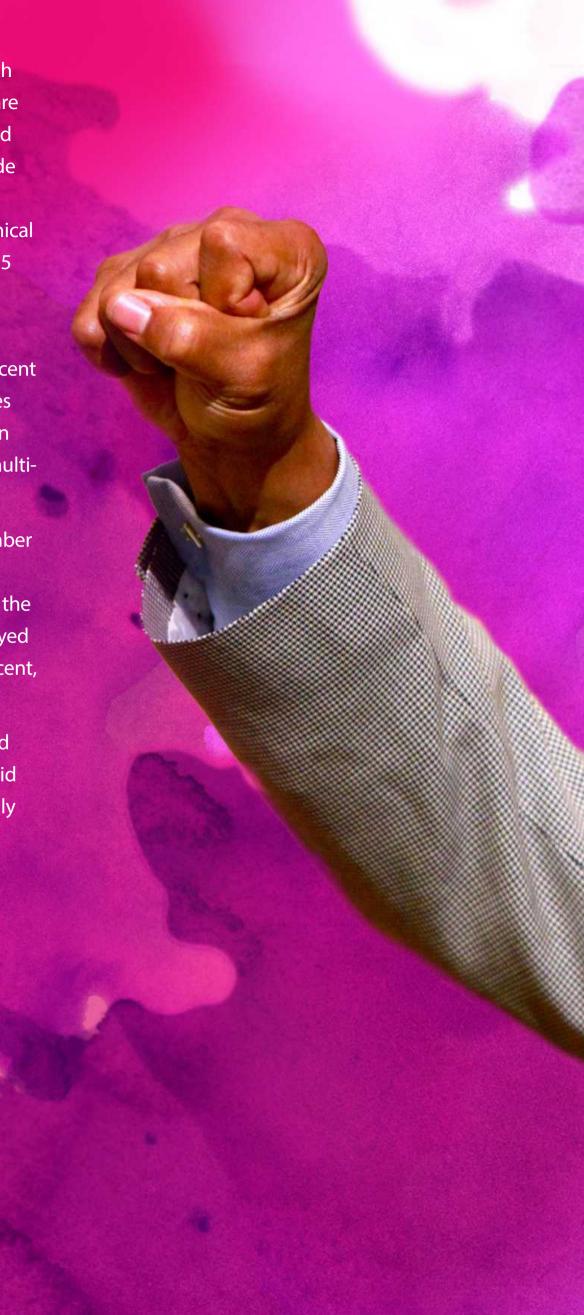
As a result, Apple's global workforce of 110,000 is now 31 percent women, up from 30 percent last year. Its U.S. workforce is 19 percent black or Hispanic, up from 18 percent. That includes employees in non-technical jobs, such as retail positions in Apple stores. By comparison, about 26 percent of U.S. workers across all industries are black or Hispanic.

Critics are especially concerned about low diversity rates among technical workers, such as computer software developers or hardware engineers, which are usually the highest-paid jobs at most Silicon Valley companies, outside top management. The number of black and Hispanic workers in Apple's U.S.-based technical jobs increased from 13 percent last year to 15 percent this year.

The number of white and Asian technical workers at Apple also increased from 77 percent last year to 78 percent this year. The increases appeared to be matched by slight declines in the number of employees who identify as multiracial or didn't declare their ethnicity.

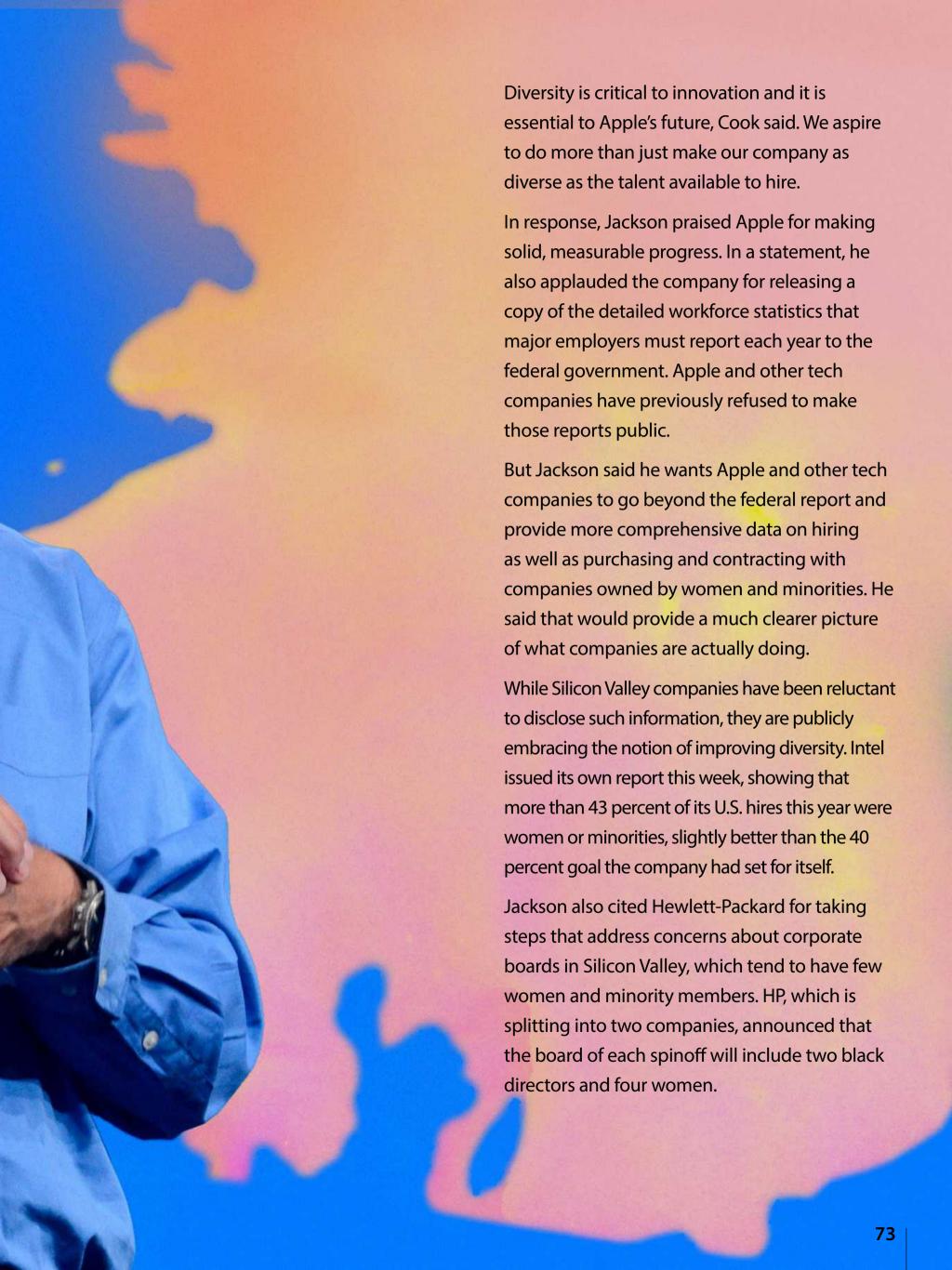
In another key category, Apple said the number of whites in U.S.-based leadership positions dropped to 63 percent from 64 percent, but the numbers of Asians, Hispanics and blacks stayed the same at 21 percent, 6 percent and 3 percent, respectively.

Cook said in a statement that he's committed to hiring more women and minorities. He said Apple is also contributing funds to historically black colleges and programs that provide technology and skills-training to students in disadvantaged communities.













## A LOOK AT SAMSUNG PAY, OTHER MOBILE PAYMENTS

Samsung is hoping its new mobile-payment service will let you leave your wallet at home.

It's a claim Samsung Pay's rivals - Apple Pay and Google's Android Pay - aren't able to make because they work with fewer merchants. Those rival services require merchants to have newer payment equipment with wireless technology known as near-field communication, or NFC.

Samsung Pay can mimic the old-school, magnetic signals produced by card swipes. That means it should work with most existing equipment.

Nonetheless, most people won't leave their wallets home anytime soon. Plastic credit and debit cards aren't difficult to carry around and hand over, so there isn't an urgency to sign up for any of these services. And while Samsung Pay works with more merchants, acceptance isn't universal because of technical and behavioral constraints.

Samsung Pay will debut in South Korea on Aug. 20. It will start in the U.S. on Sept. 28, with a test period beginning Aug. 25. Samsung plans to expand to the U.K., Spain and China as well. Android Pay will come out later this year in the U.S., while Apple Pay launched in the U.S. last October and expanded to the U.K. last month.

Here's a closer look at Samsung Pay and how it compares with Apple Pay and Android Pay.

## WHAT ARE THE ADVANTAGES OVER PLASTIC?

Although taking out plastic isn't difficult, using the phone is more convenient if you already have it out - say, to check Facebook while waiting in line. It's also great in cabs: When you pull out your wallet late at night, your keys might accidentally slip out.

The bigger advantage is security. With all three services, you're assigned a substitute card number unique to the phone. The store gets this number, so if its system gets hacked, your main card number isn't compromised. To work, the substitute number must be paired with a one-time code generated by that device. Hackers getting that number will also need physical possession of your phone.

#### WHAT ARE THE DISADVANTAGES?

Because Apple Pay and Android Pay require NFC payment equipment, there's a good chance it won't work where you're trying to buy something. Samsung Pay's magnetic technology serves as a backup. You don't need to worry about what your merchant has. The phone figures it out automatically.





Despite promises of wide acceptance with the magnetic technology, Samsung Pay won't be universal. You're not likely to give the waiter your phone - let alone your passcode - to pay the check at a restaurant. The technology also won't work where you need to insert your card into a machine, such as gas pumps and ticket kiosks.

#### WHY IS SAMSUNG DOING THIS?

The company says it won't get any direct revenue from transactions. However, it is hoping the service will be compelling enough for people to choose a Samsung phone over a rival's.

#### **HOW WILL SAMSUNG PAY WORK?**

When you're ready to pay, just swipe up from the bottom to see a list of your cards. The card you used most recently is there by default, though you can swipe left or right to choose another card. You hold the phone near the store's payment terminal and place your finger over the home button to authorize the transaction with your fingerprint.

This can be done whether you're on the lock screen or the home screen, or if the screen is off (but the phone is on). If you're in an app such as Facebook, you need to get to the home screen first. That's one big difference with Apple Pay, which works from any app and doesn't require the initial swipe up. Android Pay will work like Apple Pay, except it won't work with the screen off.

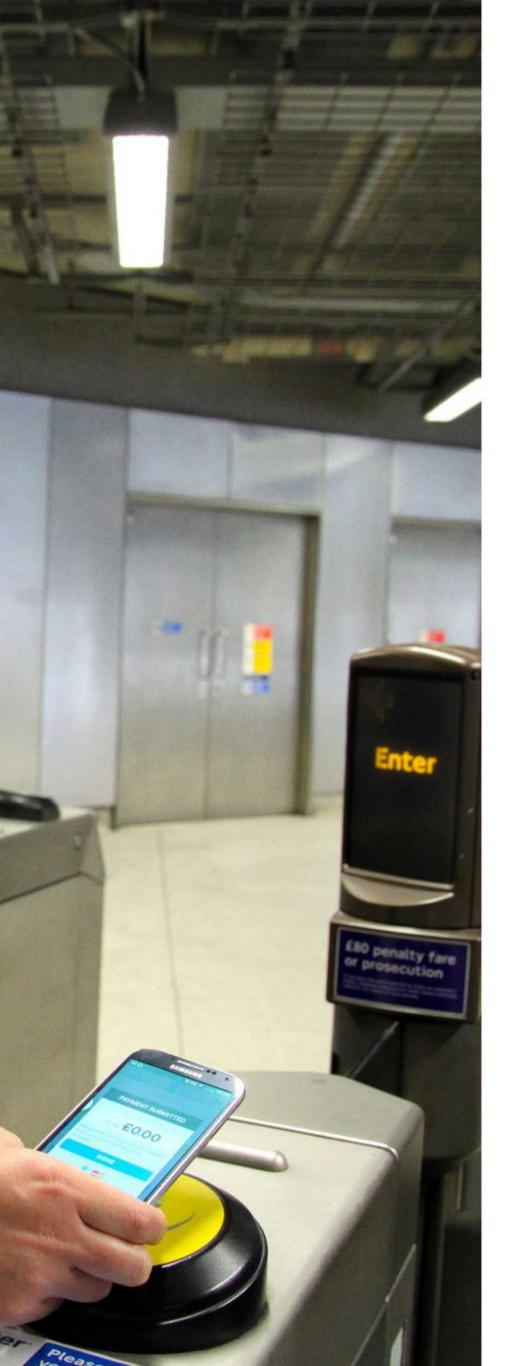
#### WHAT WILL YOU NEED?

The service will initially work with just four Samsung phones - the Galaxy S6 or S6 Edge from this spring and the upcoming Note 5 or S6 Edge









Plus. Android Pay will work with a broader range of Android devices - those with an NFC chip and at least the KitKat version of Android, which came out in 2013. That includes these four Samsung phones.

Your card also needs to be from a bank that has signed on. A full list isn't available yet, but it will include cards from Bank of America, Chase, Citi and U.S. Bank, along with scores of store-branded cards, including Sleepy's and PC Richard.

## IF THESE PHONES CAN USE EITHER, WHY CHOOSE ONE OVER ANOTHER?

Samsung Pay will work with a broader range of merchants. On the other hand, it's for in-store use only.

Android Pay can be used within selected apps for online transactions, so you don't have to re-enter card numbers and shipping addresses. You also have security from sharing just the substitute number. Apple Pay has in-app support, too, but Samsung Pay does not.

Samsung Pay will also take a few more steps to use. With NFC, the phone can detect when it's near a payment terminal and automatically launch the payment service. Because Samsung Pay has a magnetic component, which is a one-way technology, you need to activate it first by swiping from the bottom.

#### WHAT DOES THIS MEAN FOR APPLE PAY?

Apple Pay has a head start and will still be the only service to work on iPhones and the Apple Watch. More competition might promote greater acceptance of mobile payment in general, as it's a concept not familiar yet to most consumers and merchants.

# Free Apps



#### #01 – Facebook Messenger

By Facebook, Inc.

Category: Social Networking

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #02 – Facebook

By Facebook, Inc.

Category: Social Networking

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #03 – Instagram

By Instagram, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #04 – YouTube

By Google, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #05 - Snapchat

By Snapchat, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #06 - Ball Jump

Category: Games

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.



#### #07 – Layout from Instagram

By Instagram, Inc.

Category: Photo & Video



#### #08 – Pandora Radio

By Pandora Media, Inc.

Category: Music

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #09 – Google Maps



#### #10 – Tap Sports Football

By Glu Games Inc

Category: Games

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.





#### #01 – OS X Yosemite



#### #02 – App for Instagram



**#03 – App for Youtube**By Joacim Ståhl
Category: Social Networking



#### #04 – Streaming for Netflix



#### #05 – App for Facebook



#### #06 – Kindle

By AMZN Mobile LLC Category: Reference Compatibility: OS X 10.6 or later



#### #07 – Twitter



#### #08 – ooVoo Video Call, Text and Voice



#### #09 - Microsoft OneNote



#### #10 – Bitdefender Virus Scanner

By Bitdefender SRL Category: Utilities





Mac OS X





#### #01 - Minecraft - Pocket Edition

By Mojang

Category: Games / Price: \$6.99

Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #02 - Five Nights at Freddys 4

By Warner Bros.

Category: Games / Price: \$0.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #03 - Heads Up!

By Warner Bros.

Category: Games / Price: \$0.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #04 - Akinator the Genie

By Elokence

Category: Entertainment / Price: \$1.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #05 - Bloons TD 5

By Ninja Kiw

Category: Games / Price: \$0.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #06 - Plague Inc.

By Ndemic Creations

Category: Games / Price: \$0.99

Requires iOS 4.3 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #07 – Terraria

By 505 Games (US), Inc.

Category: Games / Price: \$1.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #08 – THE GAME OF LIFE Classic Edition

By Electronic Arts

Category: Games / Price: \$0.99

Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #09 - Geometry Dash

By RobTop Games AB

Category: Games / Price: \$1.99

Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #10 – Sky Guide: View Stars Night or Day

By Fifth Star Labs LLC

Category: Reference / Price: \$0.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #01 - GarageBand

By Apple
Category: Music / Price: \$4.99
Compatibility: OS X 10.9 or late



#### #02 – Grim Fandango Remastered

By Double Fine Productions, Inc. Category: Games / Price: \$9.99 Compatibility: OS X 10.7 or later



#### #03 - AntiVirus Sentinel Pro

By Calin Popescu
Category: Utilities / Price: \$9.99
Compatibility: OS X 10.7 or later, 64-bit processor



#### #04 - Day One

By Bloom Built, LLC Category: Lifestyle / Price: \$4.99 Compatibility: OS X 10.9 or later, 64-bit processo



#### #05 – Disk Doctor

By FIPLAB Ltd Category: Utilities / Price: \$2.99 Compatibility: OS X 10.7.3 or later, 64-bit processor



#### #06 – Duplicate Photos Fixer Pro

By Systweak Software Category: Photography / Price: \$0.99 Compatibility: OS X 10.7 or later



#### #07 – Logic Pro X

By Apple
Category: Music / Price: \$199.99
Compatibility: OS X 10.8.4 or later, 64-bit processor



#### #08 – Document Writer

By xiong feng Category: Business / Price: \$9.99 Compatibility: OS X 10.7 or later



#### #09 – Notability

By Ginger Labs Category: Productivity / Price: \$5.99 Compatibility: OS X 10.9 or later, 64-bit processor

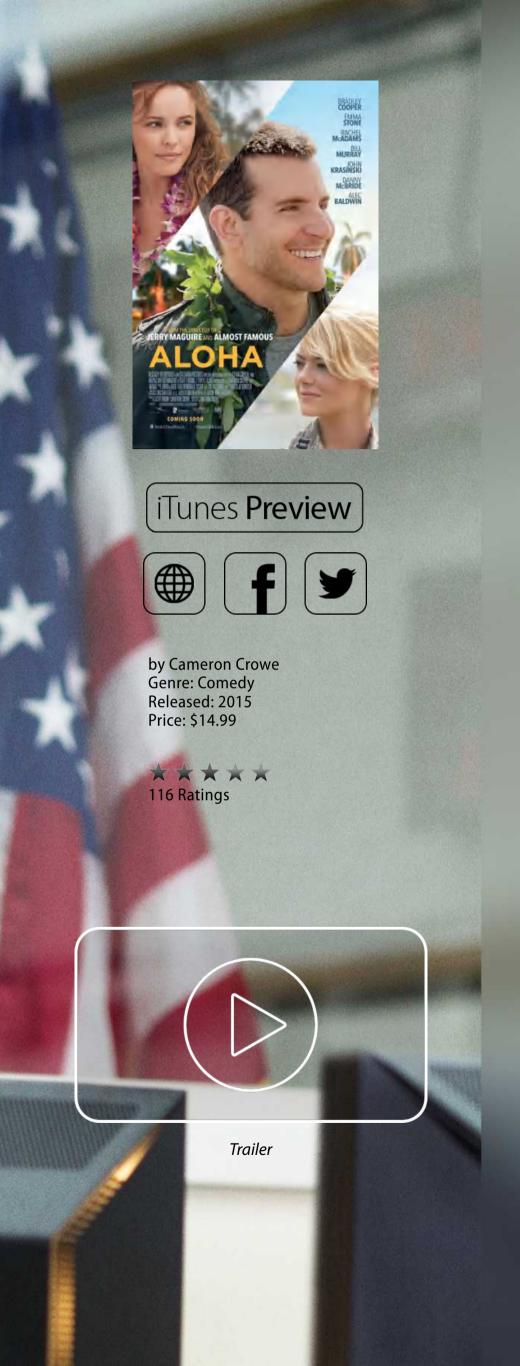


#### #10 – FaceTime

By Apple Category: Social Networking / Price: \$0.99 Compatibility: OS X 10.6.6 or later







#### Aloha

Military contractor Brian Gilcrest (Bradley Cooper) is on assignment in Hawaii, where his career reached its biggest heights, when he meets up again with Tracy Woodside (Rachel McAdams), with whom he had enjoyed a romance long ago. To his surprise, however, he ends up falling for a feisty Air Force watch-dog, Captain Allison Ng (Emma Stone), who had joined him on the island.

#### **FIVE FACTS:**

- **1.** This is the first film that Cameron Crowe has directed since We Bought a Zoo, also a comedy-drama, in 2011.
- **2.** Other members of the cast include Bill Murray as Carson Welch, John Krasinski as John "Woody" Woodside and Alec Baldwin as General Dixon.
- 3. Before the film's final title was decided upon, other titles had included Deep Tiki and Volcano Romance.
- 4. Crowe has offered a "heart-felt apology" for casting Emma Stone as a quarter-Hawaiian, after this "odd or misguided casting choice" provoked much negative reaction.
- 5. Stone herself has acknowledged that the controversy has "ignited a conversation that's very important" and revealed that she has "learned on a macro level about the insane history of whitewashing in Hollywood and how prevalent the problem truly is."





### Cop Car

Two mischievous ten-year-old boys, Travis (James Freedson-Jackson) and Harrison (Hays Wellford) find what seems to be an abandoned cop car in a secluded location and decide to go joyriding with it. Unsurprisingly, however, their misbehavior soon brings them into trouble with the county's Sheriff Kretzner (Kevin Bacon), and the situation begins to develop into something rather more brutal.

#### **FIVE FACTS:**

- 1. This road thriller's premiere took place at the Sundance Film Festival on January 24.
- **2.** The theater release was on August 7, just a week before the iTunes release on August 14.
- **3.** Cop Car has attracted generally favorable reviews. The critical consensus on Rotten Tomatoes says that the movie "boasts a terrific premise and a grimly gripping opening act -- and for some viewers, that will be enough to compensate for the movie's uneven denouement."
- **4.** The piano-playing in the score was that of the composer Phil Mossman's 13-year-old son, Lucas.
- 5. Since 2012, Bacon has regularly appeared in UK-broadcast commercials for the telecoms firm EE, which is one of the main mobile broadband carriers for iPhones and iPads in Britain.



iTunes **Preview** 







by Jon Watts Genre: Thriller Released: 2015 Price: \$14.99



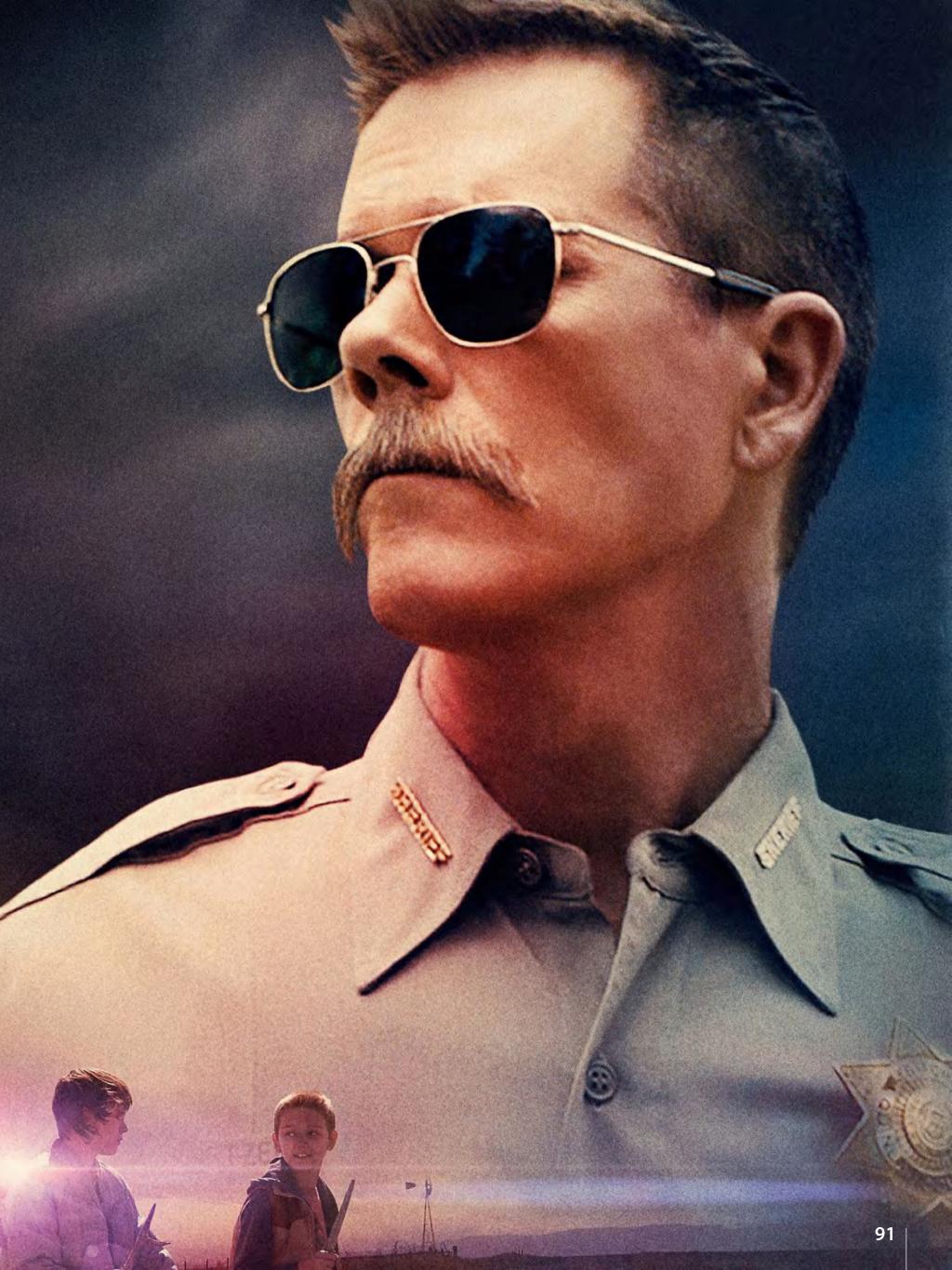


Trailer

Rotten Tomatoes

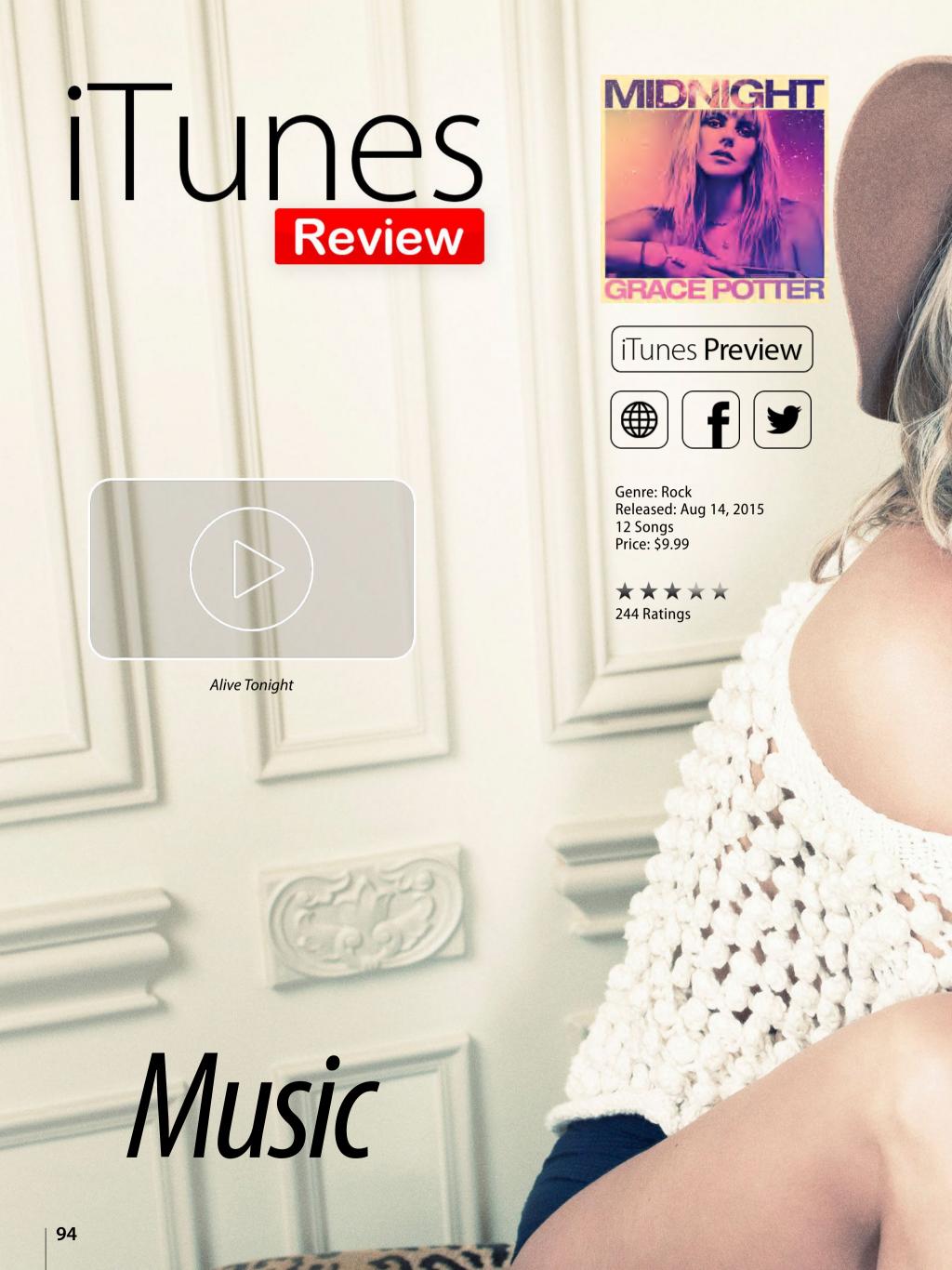


77%











## Midnight Grace Potter

Hailing from Vermont, the rock band Grace Potter and the Nocturnals has been enthralling fans with many different types of rock, including blues, folk, hard and alternative, since forming in 2002. However, their lead singer, Grace Potter, has left the Nocturnals behind for this solo album, on which she has plenty of opportunities to show off her Janis Joplin-like vocals.

#### **FIVE FACTS:**

- **1.** This is Potter's first solo album since Original Soul in 2004.
- 2. Midnight is, however, Potter's first solo album released through Hollywood Records.
- **3.** Her touring schedule for September and October includes dates in California, New York City and Nashville.
- **4.** In June, Potter **performed "Gimme Shelter" with the Rolling Stones** at a show in Minneapolis.
- **5.** She has expressed a desire to work with Led Zeppelin lead singer Robert Plant.



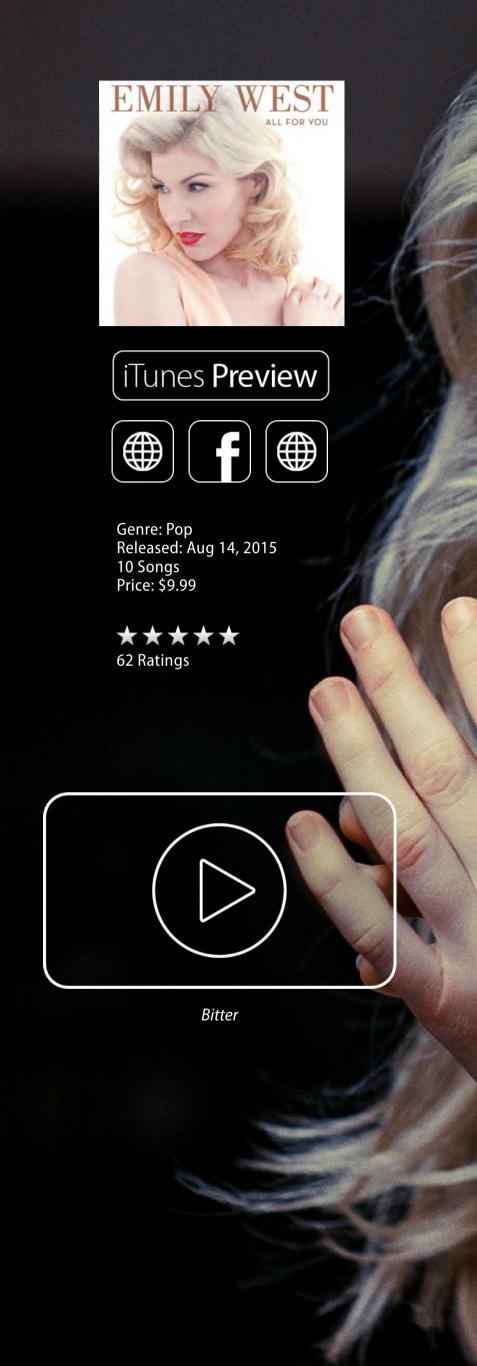


## All For You Emily West

Whether they have followed Emily West since her debut single "Rocks in Your Shoes" reached the top 40 of Billboard's Hot Country Songs chart in 2008 or only got to know her with her successful stint in America's Got Talent last year, fans of this country music singer are bound to delight that her first full-length album, All For You, is now out on iTunes.

#### **FIVE FACTS:**

- 1. West's birth name is Emily Marie Nemmers.
- **2.** She has duetted with fellow country singer Keith Urban on the song "Blue Sky".
- **3.** Songs that West performed on America's Got Talent and also appear on this album include "Chandelier", "Nights in White Satin", "Sea of Love" and "You Got It".
- 4. West has described herself as a hybrid of alluring cartoon character Jessica Rabbit and growly-voiced singer-songwriter Tom Waits.
- **5.** She has also described this album's first single, "Bitter", as "empowering" and "my first attempt to write a roll-your-windows-down kind of song".











## HIGH-TECH CARS BRING DETROIT, SILICON VALLEY FACE TO FACE

The office has all the trappings of a high-tech startup. There's a giant beanbag in the foyer and erasable, white board walls for brainstorming. Someone's pet dog lounges happily on the sunny balcony.

Welcome to the Palo Alto home of the Ford Motor Co., six miles from the headquarters of Google.

Meanwhile, in a squat, industrial building in suburban Detroit, a short drive from Ford's headquarters, workers are busy building a small fleet of driverless cars.

The company behind them Google.

The convergence of cars and computers is blurring the traditional geographical boundaries of both industries. Silicon Valley is dotted with research labs opened by automakers and suppliers, who are racing to develop high-tech infotainment systems and autonomous cars.

Tech companies - looking to grow and sensing an industry that's ripe for disruption - are heading to Detroit to better understand the auto industry and get their software embedded into cars.

The result is both heated competition and unprecedented cooperation between two industries that rarely spoke to each other five years ago.

It's a cross-pollination. We're educating both sides, says Niall Berkerey, who runs the Detroit office of Telenav, a Sunnyvale, California-based firm that makes navigation software.

There's also plenty of employee poaching. Apple recently hired Fiat Chrysler's former quality chief. Ride-sharing service Uber snagged 40 researchers and scientists from Carnegie Mellon's Pittsburgh robotics lab. Tesla's head of vehicle development used to work at Apple.

For years the fast-paced tech industry showed little respect for the plodding car industry. Google and Palo Alto-based Tesla, with its high-tech electric sedans, helped change that.

People think it's shiny Silicon Valley versus grungy Detroit, but that's garbage, says Chris Urmson, who leads Google's self-driving car program. If you look at the complexity of a vehicle, it's an engineering marvel.

Dragos Maciuca, a former Apple engineer who's now the technical director of Ford's Palo Alto research lab, says he's seeing a new excitement about the auto industry in Silicon Valley. For one thing, cars provide a palpable sense of accomplishment for software engineers.

If you work at Google or Yahoo, it's hard to point out, `Well, I wrote that piece of code.' It's really









hard to be excited about it or show your kids, Maciuca he says. In the auto industry, you can go, `See that button The stuff that's behind it, I worked on that.'

But cocky tech companies have had to adapt to the tough standards of the auto industry, which requires technology to work perfectly, for years, in all kinds of conditions. Maciuca spends much of his time educating software and app developers about the industry's needs.

Silicon Valley goes toward this model of a minimum viable product. It's easy to throw things out there and try them and see if they work, Maciuca says. We can't do that.

Santa Clara, California-based Nvidia was best known for making chips for computer games before it got into the car business. Now, it makes the computer processors that power Tesla's 17-inch touchscreen dashboard and Audi's experimental self-driving cars, among other products. It had to develop new manufacturing techniques and higher levels of certification for the auto business, such as tests to make sure its computer chips would still work in subzero temperatures, says Danny Shapiro, Nvidia's senior director of automotive.

For their part, the automakers are learning that rolling out cars that remain static for years until the next model comes out is no longer practical. At the insistence of tech companies such as Telenav and Nvidia, they're learning to make cars with navigation, infotainment and other features that can be constantly updated. Mercedes-Benz, Tesla, Toyota, BMW, and others can now update vehicle software wirelessly to fix problems or add more capability.

Shapiro says the cost-conscious auto industry has had to learn to spend a little more - maybe \$10 to \$20 per car - on computer hardware. Automakers would often go with the cheapest option but then spend even more fixing bugs, or be forced to replace processors that didn't have enough power to add updates.

Nvidia now has eight permanent engineers at various automakers in Michigan.

We've helped them adopt more of a computer industry mindset, which is not to reinvent what they're doing every five to seven years, Shapiro says.

Even with that new spirit of collaboration, automakers and tech companies also use their local labs to do a little spying.

Frankie James, a former NASA researcher who now runs General Motors' Palo Alto office, says spotting trends and potential threats is one of the most important parts of her job. Her team alerted GM to the car-sharing trend, for example, and the automaker invested \$3 million in Relay Rides in 2011.

Now, she's watching companies that could potentially disrupt the auto business, such as Google and Apple. Google has promised a self-driving car within five years, and Apple has hired people from Tesla, Ford and other car companies for its own top-secret project.

We need to say, `OK, if we think Apple is going to build something like this because they've got this vision of the future,' if we take that same vision of the future, what can we do How can we continue to play James says.

The tech industry is also watching its back.





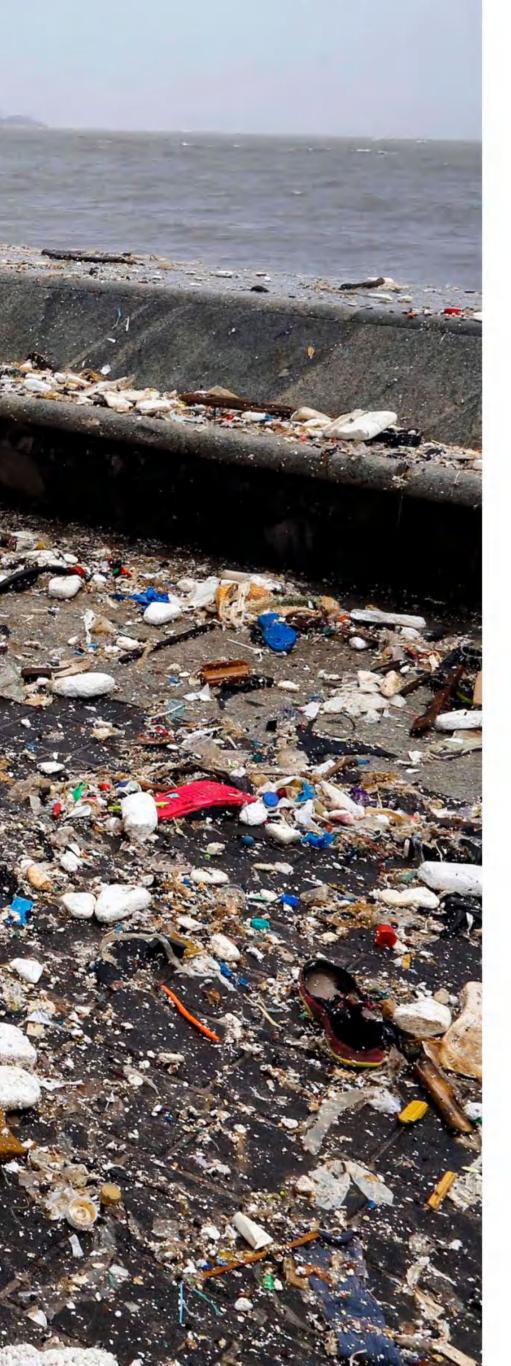












For years along the Cornish coast of Britain,
Atlantic Ocean currents have carried thousands
of Lego pieces onto the beaches. In Kenya,
cheap flip-flop sandals are churned relentlessly
in the Indian Ocean surf, until finally being spit
out onto the sand. In Bangladesh, fishermen
are haunted by floating corpses that the Bay of
Bengal sometimes puts in their path.

And now, perhaps, the oceans have revealed something else parts of Malaysia Airlines Flight 370, the jetliner that vanished 17 months ago with 239 people on board.

Experts believe it crashed into the vast emptiness of the Indian Ocean, somewhere between Africa and Australia. While some wreckage presumably sank, some is also thought to have joined the millions of tons of oceanic debris - from Legos accidentally spilled from cargo ships to abandoned fishing nets to industrial trash - that can spend years being carried by the Earth's currents, sometimes turning up thousands of miles away from where they entered the water.

So there was little surprise among oceanographers when part of a jet's wing, suspected wreckage from the vanished Boeing 777, was found two weeks ago along the shores of Reunion, a French island off the African coast.

The ocean is not a bathtub. It's in constant motion, said Erik van Sebille, an oceanographer with the Grantham Institute at Imperial College London who has spent years studying how currents carry debris. At the surface it's this giant, churning machine that moves things from A to B, he said. And it's connecting all the areas of the globe.

Often, that giant churning machine also moves in fairly predictable ways, with currents and winds moving in predictable directions and speeds.

Malaysian investigators were also dispatched this week to the Maldives, a South Asian archipelago nation, to examine debris that had recently washed ashore there. But on Friday the country expressed pessimism that it was related to the plane.

Transport Minister Liow Tiong Lai said most of the Maldives items examined are not related to MH370 and they are not plane material. He did not say whether every piece of debris had been ruled out.

Charitha Pattiaratchi, an oceanographer at the University of Western Australia, used computer modeling last year to predict that debris from Flight 370 might end up somewhere near Reunion, or nearby Madagascar, about now. But he said that if the wing part found on Reunion turns out to be from Flight 370 - French investigators are still examining it, though Malaysian officials have said it definitively came from the disappeared jet - then he doubts the debris found in the Maldives is also from the jetliner.

Because the Maldives lie north of the equator and Reunion Island is to the south, finding wreckage in both spots is highly unlikely, he said. Ocean currents and winds make it extremely difficult for flotsam to cross the equator.

Plus, Pattiaratchi adds, it would be exceedingly difficult for any Flight 370 debris to have ended up in the Maldives at all by now. To reach there,









the wreckage would have had to float west from the current search area off Australia and toward Africa, then turn north and travel along the African coast past Somalia and into the Arabian Sea, before turning south and east toward the Maldives. That would be a massive journey to make in just 17 months; debris found on Reunion, in contrast, could have traveled in a relatively simple counterclockwise arc.

If it is from MH370, then that's a very hard thing to explain. Not entirely impossible, because we're talking about nature, he said.

Flight 370 disappeared March 8, 2014, on its way from Kuala Lumpur to Beijing. While officials believe it crashed in the Indian Ocean, killing all aboard, the wreckage and cause remain elusive despite a vast ongoing search led by Australia.

Finding anything specific amid the oceanic junk piles requires immense effort.

Just how much debris is out there No one knows, though certainly the scale is enormous.

According to a 2015 study, the world dumps 8.8 million tons of plastic into the world's oceans every year. The study, led by University of Georgia environmental engineering professor Jenna Jambeck, warned that in a decade the plastic trash in the oceans could total 170 million tons.

Sometimes it clusters together. Scientists have identified five garbage patches, gargantuan corrals of debris formed by circular ocean currents. One, the so-called Great Pacific Garbage Patch, could be as large as Texas.

But do not, van Sebille warns, picture masses of garbage floating on the surface of the water. These are not islands of trash. There are no





big pieces that you can stand on, even in the garbage patches, he said. Instead, those millions of tons of plastic quickly disappear from view, reduced to a near-invisible cloud that floats just beneath the surface.

After a few months, the sea and sun have completely broken down the plastic into a confetti of tiny, tiny pieces, he said. The small size, he notes, doesn't make them environmentally friendly. The minuscule particles can be even more dangerous, he said, because they can easily enter the food chain after being eaten by small fish, and are extremely difficult to clean up.

In Kenya, Julie Church has found a use for some flotsam. The marine conservationist, inspired by village children who turn beach debris into toys, created a company that transforms castoff sandals into bright sculptures and playthings.

Today, Ocean Sole recycles an average of 1,000 kilograms (2,200 pounds) of flip-flops each week. Judging by the trash they find around the sandals, Church thinks some footwear floated to Kenya from as far as Indonesia and Malaysia.

But that's a rare happy ending amid so much debris. More often, it's a litany of the prosaic and the strange.

There are the wealth of goods dumped into the water when hundreds - and sometimes thousands - of shipping containers are lost at sea every year. Those Legos on the Cornish coast come compliments of a container thrown overboard by a rogue wave in 1997.

There are the thousands of buoys that have littered beaches in Alaska, along with building insulation, property stakes and crates used by



adrift after Japan's 2011 tsunami and sunk by the U.S. Coast Guard in the Gulf of Alaska in 2012 before it could reach shore. There are the corpses that Mohammed Nasir sees as he fishes in the Bay of Bengal. I have seen many such bodies in my life, said the 53-year-old Bangladeshi. I often think how unlucky they are. They have left their families behind. But mostly Mostly it's garbage. Thousands and thousands of tons of garbage. Chris Pallister, president of Gulf of Alaska Keeper, a beach cleanup organization, said by email that nearly everything his crews find is trash. Sometimes, though, even that has emotional impact. Such as shoes, particularly in my case, infant shoes, he said. When you contemplate where they come from, it can be quite disturbing. 123

### CHARLIE PUTH



### MARVIN GAYE FEAT. MEGHAN TRAINOR



CAN'T FEEL MY FACE
THE WEEKND

CHEERLEADER
(FELIX JAEHN REMIX RADIO EDIT)
Omi

WATCH ME (WHIP / NAE NAE)
SILENTO

LOCKED AWAY
(FEAT. ADAM LEVINE) - SINGLE
R. CITY

FIGHT SONG

RACHEL PLATTEN

GOOD FOR YOU (FEAT. A\$AP ROCKY)
SELENA GOMEZ

MARVIN GAYE (FEAT. MEGHAN TRAINOR)
CHARLIE PUTH

**LEAN ON (FEAT. MØ & DJ SNAKE)** Major Lazer

FLY AWAY
5 SECONDS OF SUMMER

**DRAG ME DOWN**ONE DIRECTION





**SOUNDS GOOD FEELS GOOD (DELUXE)** 

5 SECONDS OF SUMMER

**KILL THE LIGHTS** 

LUKE BRYAN

1989

TAYLOR SWIFT

DESCENDANTS (ORIGINAL TV MOVIE SOUNDTRACK)

VARIOUS ARTISTS

X (DELUXE EDITION)

ED SHEERAN

**BLURRYFACE** 

TWENTY ONE PILOTS

**MONTEVALLO** 

Sam Hunt

**VENOM (DELUXE EDITION)** 

BULLET FOR MY VALENTINE

21 CLASSIC #1 HITS

VARIOUS ARTISTS

NOW THAT'S WHAT I CALL MUSIC, VOL. 55

**V**ARIOUS **A**RTISTS









**MEA CULPA** 

SUITS, SEASON 5

**ELIXIR OF LIFE** 

HELL ON WHEELS, SEASON 5

GAME OVER, CHARLES

Pretty Little Liars, Season 6

EPS1.7\_WH1TEROSE.M4V

Mr. Robot, Season 1

IT'S ALL IN THE CARDS

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## GOOGLE HEADS DOVVN NEVV PATH WITH 'ONHUB' WIRELESS ROUTER

Google is making a Wi-Fi router as part of its ambition to provide better Internet connections that make it easier for people to access its digital services and see more of its online advertising.

Pre-orders for the \$199 wireless router, called OnHub, can be made beginning Tuesday at Google's online store, Amazon.com and Walmart.com. The device will go on sale in stores in the U.S. and Canada in late August or early September.

Google is touting the cylinder-shaped OnHub as a leap ahead in a neglected part of technology.

The Mountain View, California, company is promising its wireless router will be sleeker, more reliable, more secure and easier to use than other long-established alternatives made by the Arris Group, Netgear, Apple and other hardware specialists. Google teamed up with networking device maker TP-Link to build OnHub.





OnHub also will adapt to the evolving needs of its owners because its software will be regularly updated to unlock new features, according to Trond Wuellner, a Google Inc. product manager. The concept is similar to the automatic software upgrades the company makes to its Chrome browser and personal computers running on its Chrome operating system.

Wuellner expects most people will be able to set up OnHub in three minutes or less. The router is designed to be managed with a mobile app called Google On that will work on Apple's iPhone, as well as devices running on Google's Android software.

Google's expansion into wireless routers may conjure up memories of how the company trespassed on the Wi-Fi networks in homes and businesses around the world for more than two years beginning in 2008.





In 2010, Google acknowledged that company cars taking photos for its digital maps also had been intercepting emails, passwords and other sensitive information sent over unprotected Wi-Fi networks. The intrusion became derisively known as "Wi-Spy" among Google's critics.

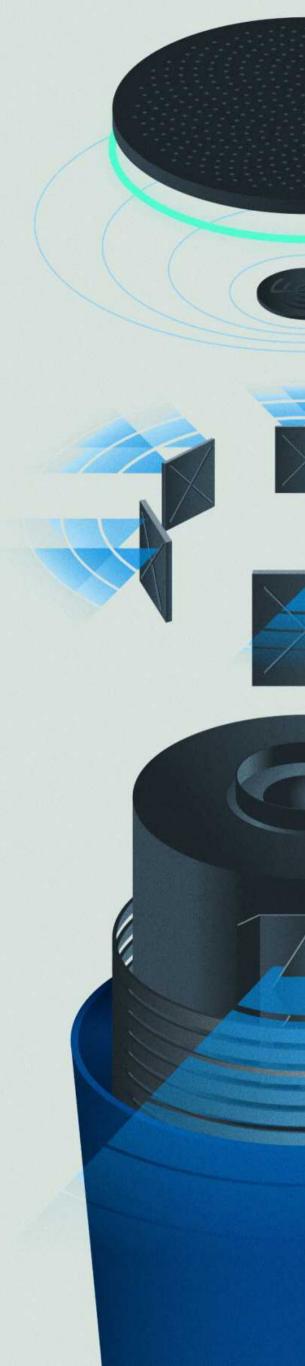
Although Google insisted it hadn't broken any laws, it paid \$7 million in 2013 to settle allegations of illegal eavesdropping in the U.S. made by 38 states and the District of Columbia.

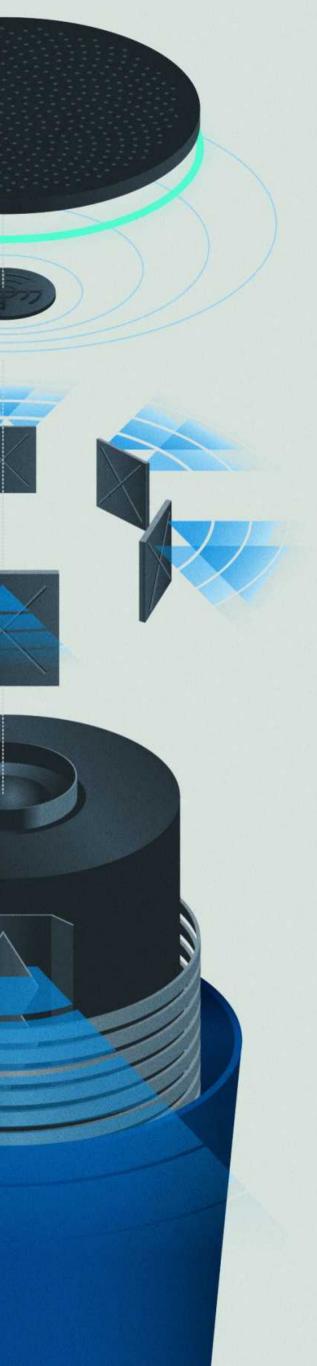
Google is pledging not to use OnHub to monitor a user's Internet activity. The company will still store personal information sent through an Internet connection tied to OnHub when a user visits Google's search engine or other services, such as YouTube or Gmail, with the privacy controls set to permit the data collection. This is the same data collection Google does when users of its services visit through any router.

The new router represents the latest phase in Google's mission to make it easier for people to be online.

Besides dispatching Internet-beaming balloons and drones to parts of the world without much online access, Google also has been trying to lower the cost and accelerate the speeds of the connections in more advanced countries such as the U.S. The goal has already hatched Google Fiber, an ultra-fast Internet service that is already available in a few U.S. cities and is coming to more than 20 others. Google is also preparing to offer a wireless subscription plan for smartphones running on the company's Android software.

Google has a financial incentive to make the Internet more accessible and less frustrating to use because it runs the world's dominant search engine, as well as the highly popular YouTube and Gmail. The company believes people who spend more time online are more likely to interact with a Google service and click on one of the ads that generate most of Google's profits.

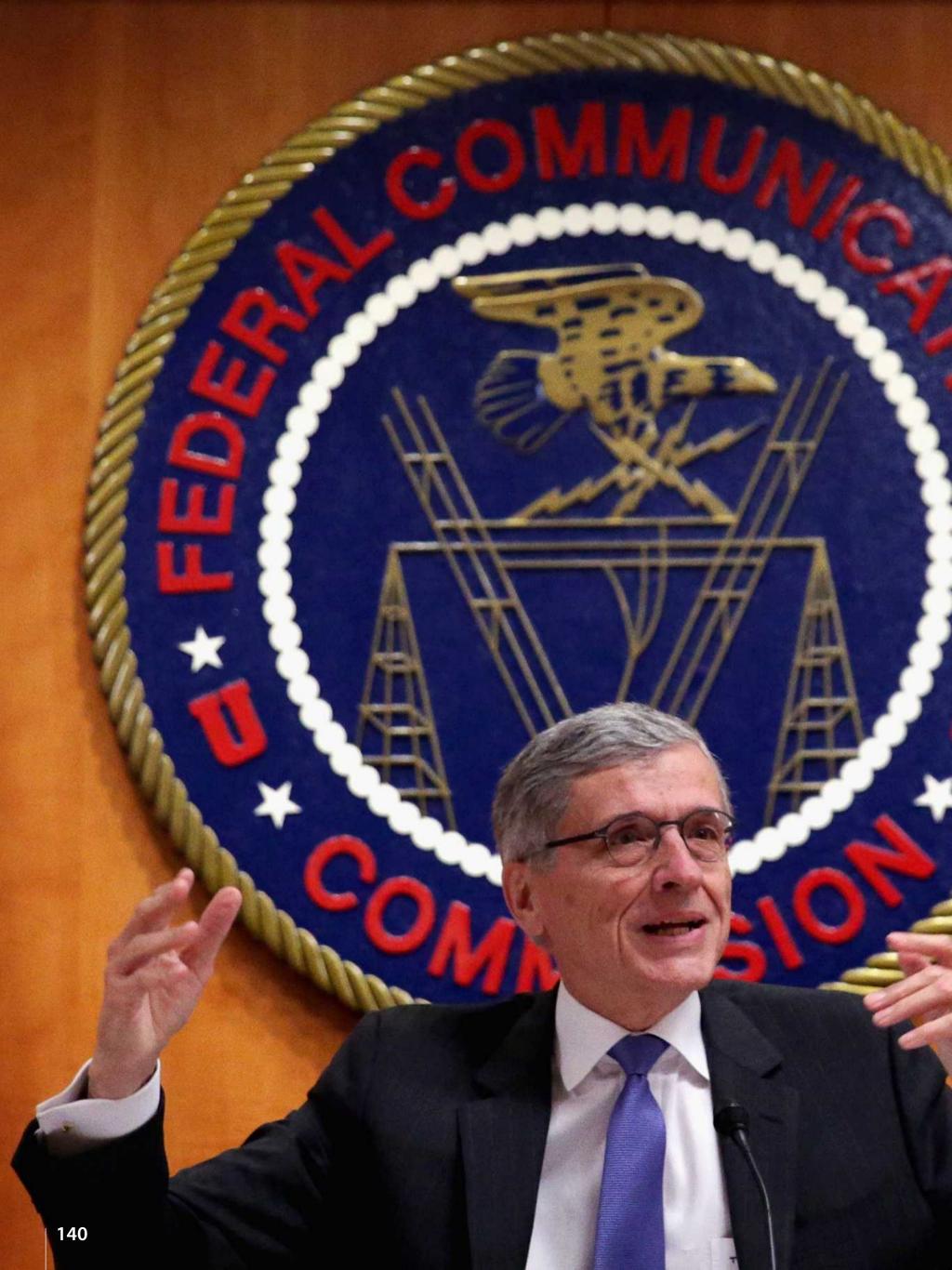




Ensuring the reliability of Wi-Fi systems is becoming more important to Google for another reason. Like other tech companies, Google is hoping to sell more home appliances and other equipment that require wireless connections to the Internet. Google's Nest division already sells thermostats, smoke detectors and video cameras that depend on Wi-Fi to work properly.

Google's push into Internet access and other far-flung fields ranging from driverless cars to health care has frustrated investors who believe the company is spending too much on its technological mishmash. To address those concerns, Google later this year is creating a holding company called Alphabet that will break things up into the main search advertising business and various side projects.

It hasn't been decided yet whether OnHub will remain in Google or spun into another part of Alphabet.





### FCC SAYS DISH CAN'T USE \$3.3B IN CREDITS IN AIRVVAVES AUCTION

The Federal Communications Commission said Monday that Dish Network Corp. can't apply \$3.3 billion in small-business credits toward the purchase of airwaves it gained in a government auction.

The government sells spectrum to carriers like AT&T and Verizon so they can add more capacity for wireless Internet. Dish is a satellite TV company that has stocked up on airwaves although it has no cellphone business.

Dish has reportedly been in talks to acquire wireless carrier T-Mobile. But on an earnings call earlier this month, Dish Chairman and CEO Charlie Ergen said that the prospect of losing the discount had caused difficulties in the negotiations.

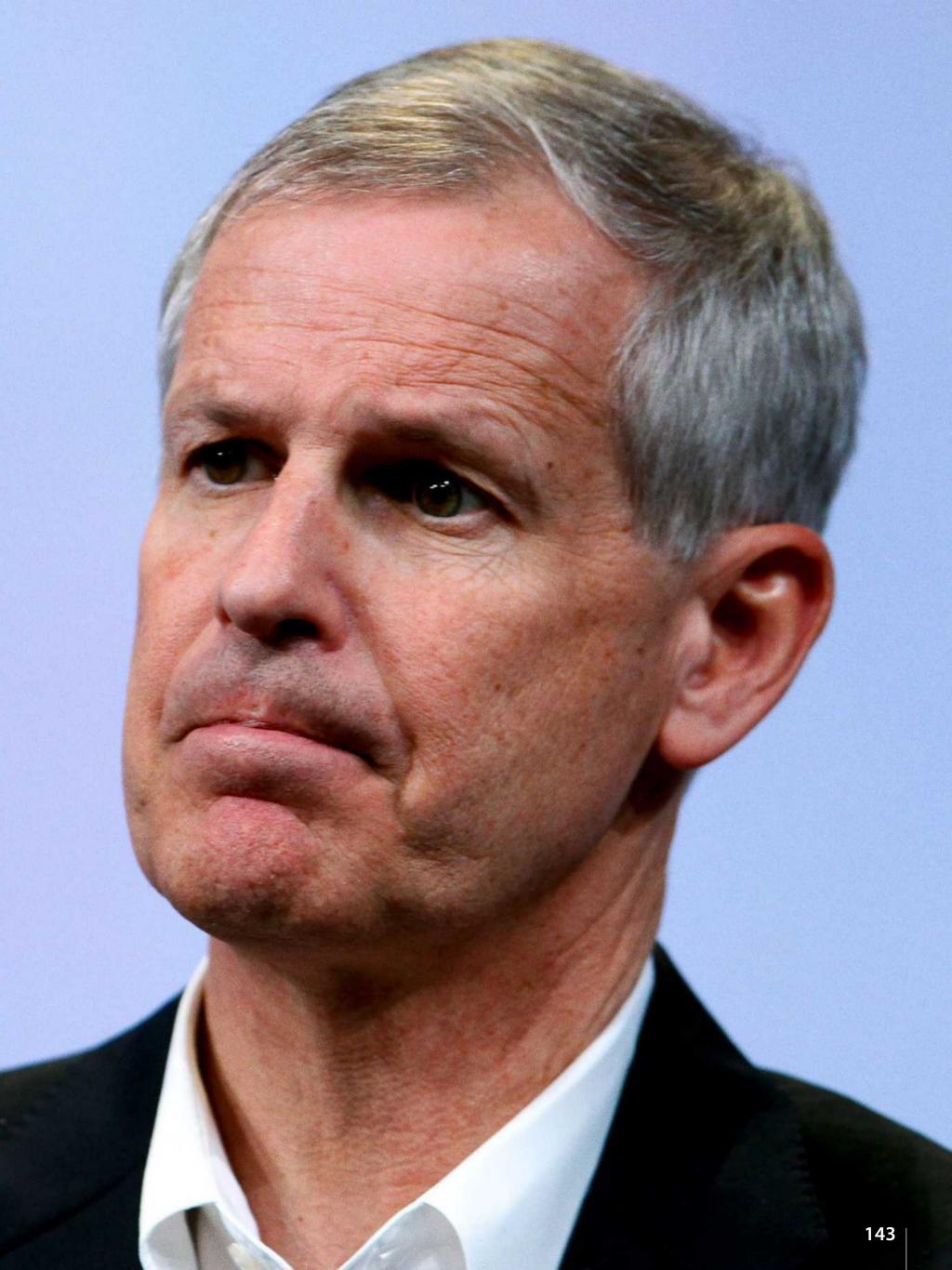
In the latest auction that ended in January, Dish won \$13.3 billion worth of spectrum through two small companies it invested in. It paid \$10 billion, with the small-business credit saving it \$3.3 billion.

The FCC said Monday the two companies aren't eligible for credit. Dish owns 85 percent of each company, which it has called a non-controlling interest.

The FCC found that Dish, which is based in Englewood, Colorado, does have a controlling interest in the companies and denied them the credit.

That means they are on the hook for the rest of the money. They can also appeal, or not pay the \$3.3 billion and instead pay a penalty.

In a statement Monday, Dish General Counsel R. Stanton Dodge said that the company is "disappointed" and that it had followed FCC precedent. The company said it will consider its options.



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